

Substitute sheet

- 23 -

PCT/EP2003/006912

Claims:

- The use of a preparation based on an antibody directed against a tumor-associated glycosylation for preparing a medicament for the prophylactic and/or therapeutic treatment for the reduction or inhibition, respectively, of the growth of tumor cells in a cancer patient by inhibiting glycosylated tumor cell receptors.
- The use according to claim 1 for treating a patient in com-2. bination with a chemotherapy.
- The use according to claim 1 for treating a chemotherapy-3. resistance.
- The use according to claim 1 for treating the "minimal residual disease".
- The use according to any one of claims 1 to 4 for preventing the mitogenic stimulation of a tumor cell by the epidermal growth factor (EGF) and/or by heregulin.
- The use according to any one of claims 1 to 5 for the lysis of tumor cells which express a receptor from the family of the EGF receptors.
- The use according to any one of claims 1 to 6, characterised in that an antibody is directed against Lewis antigens.
- 8. The use according to any one of claims 1 to 7, characterised in that an antibody directed against an aberrant glycosylation is used, like Lewis x-, Lewis b- and Lewis-y-structures, as well as sialyl-Tn, Tn antigen, GloboH, KH1, TF antigen and alpha-1,3-galactosyl epitope.
- The use according to any one of claims 1 to 8, characterised in that the antibody is a monoclonal antibody, in particular a human, humanized, chimeric or murine antibody.
- The use according to any one of claims 1 to 9, character-10.

Substitute sheet

- 24 -

PCT/EP2003/006912

ised in that an antibody having an affinity to binding the EGF receptor with a dissociation constant of below a Kd value of 10^{-6} mol/l, preferably less than 10^{-7} mol/l, most preferred 10^{-8} mol/l, or less, is used.

- 11. The use according to any one of claims 1 to 10, characterised in that the antibody is used in a dose of at least 50 mg, represented at least 200 mg, up to 2 g per patient.
- 12. The use according to any one of claims 1 to 11, characterised in that an antibody derivative is used which comprises at least the Fab-portion of an antibody and binds to a tumor-associated glycosylation.
- 13. The use according to any one of claims 1 to 12, characterised in that the patient suffers from a cancer with tumor cells which express a receptor from the family of the EGF receptors.
- 14. A pharmaceutical preparation for treating cancer patients and containing an antibody directed against a tumor-associated glycosylation at a concentration ranging from 0.1-10%, preferably 1-5%.
- 15. A preparation for the pharmaceutical and/or diagnostic use, based on an antibody derivative comprising at least a Fab-portion of an antibody which binds to a tumor-associated glycosylation and has a CDC and ADCC activity of less than 50% of the native antibody.
- 16. The use according to any one of claims 1 to 13, characterised in that a body fluid or a tissue from a cancer patient is treated ex vivo, in particular bone marrow, blood, serum or organ components.
- 17. The use according to claim 16, characterised in that the cancer patient is treated within the frame of a high dosage chemotherapy.
- 18. The use according to claim 16, characterised in that the

Substitute sheet

- 25 -

PCT/EP2003/006912

body fluid, or the tissue, respectively, is derived from a patient with the risk of a cancer disease.

- 19. A method of producing a preparation based on a body fluid or tissue, in particular bone marrow, blood, serum or organ components, by
 - ex vivo treatment of the body fluid or of the tissue with an antibody directed against a tumor-associated glycosylation for forming a cellular immune complex, and
 - optionally separating the immune complex.
 - 20. A preparation obtainable by a method according to claim 18 and having a reduced content of receptors from the EGF-receptor family.
 - 21. A method of determining the risk of metastasis formation in a cancer patient, by
 - providing a sample of a body fluid from a cancer patient,
 - contacting said sample with an antibody directed against a tumor-associated glycosylation for forming a cellular immune complex of potentially present tumor cells with said antibody, and
 - qualitative and/or quantitative determination of the immune complex in the body fluid as a measure of the metastasis-forming potential.
 - 22. A diagnostic agent, containing an antibody directed against a tumor-associated glycosylation in combination with a carrier for separating a cellular immune complex.
 - 23. A diagnostic agent containing an antibody directed against a tumor-associated glycosylation in combination with a labelling for determining a cellular immune complex.

